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REMARKS

Claim 13 has been canceled. Applicants submit new claim 16. Claims 1-12 and 14-16 are now pending in the application. Applicants amend claims 1 and 14-15 for clarification, and submit claim 16 to round out the scope of the invention. Applicants refer to page 20, lines 1-11 in the specification for an exemplary embodiment of and support for the claimed invention. No new matter has been added.

Claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,896,391 to Solheim et al. in view of U.S. Patent No. 5,602,879 to Wada; claim 15 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,538,786 to Naito in view of Solheim et al., and further in view of U.S. Patent No. 4,516,083 to Turney; claims 1-2 and 5-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Solheim et al. in view of Turney, and further in view of Wada; claim 3 stands rejected 35 U.S.C. § 103(a) as being unpatentable over Solheim et al., Turney, Wada, and further in view of U.S. Patent No. 6,741,668 to Nakamura; and claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Solheim et al., Turney, Wada, and further in view of U.S. Patent No. 4,625,180 to Itaya et al. Applicants amend claims 1 and 14-15 in a good faith effort to clarify the invention as distinguished from the cited references, and respectfully traverse the rejections.

The Examiner cited Fig. 3 and col. 5, line 25 to col. 6, line 35 of Solheim et al. as alleged disclosure of the claimed "sequentially sweeping" feature. The cited portions of Solheim et al. do not include, however, any disclosure of the claimed feature of "the regeneration control circuit performs said sweeping of the voltage threshold level and the phase of the extracted clock at intervals derived from a target error rate of the input signal." The Examiner relied upon Turney to specifically address the claimed "clock timing extraction circuit," and relied upon

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Wada to specifically address the feature of "determining whether signal logic levels measured at adjacent monitor points match with each other..." Page 4, line 14 to page 5, line 6 of the Office Action. Thus, even assuming, arguendo, that it would have been obvious to one skilled in the art at the time the claimed invention to combine these references, such a combination would still have failed to cure the above deficiency of Solheim et al.

In other words, a combination of Solheim et al., Wada, and Turney, even if obvious to one skilled in the art at the time the claimed invention was made, would still have failed to disclose or suggest,

"[a] transmission device performing a signal regeneration control, comprising:

a clock timing extraction circuit dynamically setting a frequency-dividing ratio based on a transmission rate of an input signal to perform a phase synchronization control so that the input signal and an oscillation output have a constant phase difference and extracting a clock timing based on the transmission rate; and

a regeneration control circuit sequentially sweeping a voltage threshold level and a phase of an extracted clock with respect to the input signal to determine whether signal logic levels measured at adjacent monitor points match with each other and to automatically measure a decision point within a valid zone of an eye pattern at which there is the least possibility that error occurs and performing the regeneration control by using the decision point as an optimal point,

wherein the regeneration control circuit performs said sweeping of the voltage threshold level and the phase of the extracted clock at intervals derived from a target error rate of the input signal," as recited in claim 1. (Emphasis added)

Accordingly, Applicants respectfully submit that claim 1, together with claims 2, 5-12, and 16 dependent therefrom, is patentable over Solheim et al., Wada, and Turney, separately and in combination, for at least the foregoing reasons. Claim 14 incorporates features that correspond to those of claim 1 cited above, and is, therefore, patentable over the cited references for at least the same reasons. The Examiner relied upon Nakamura, Itaya et al., and Naito as

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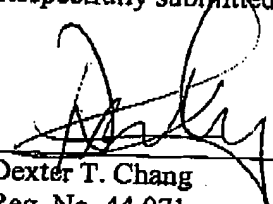
combining references to specifically address the additional features recited in dependent claims 3-4 and independent claim 15, respectively. As such, even assuming, arguendo, that it would have been obvious to one skilled in the art at the time the claimed invention was made to further combine these references, such combinations would still have failed to cure the above-described deficiencies of Solheim et al., Wada, and Turney. Accordingly, Applicants respectfully submit that claims 3-4 and independent claim 15 are patentable over the cited references for at least the foregoing reasons.

Applicants appreciate the Examiner's implicit finding that the additional reference made of record, but not applied, does not render the claims of the present application unpatentable, whether this reference is considered alone or in combination with others.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,


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